Amendments to the Claims

Please replace claims 1 through 36 with the following amended claims 1 through 46:

1. (Original) A filtrate addition system for producing a uniform filtrate distribution in the blow dilution zone of a continuous digester comprising:

(a) a blow dilution header/nozzle assembly located in the blow dilution zone comprising

(i) a plurality of nozzles for introducing and distributing filtrate into the blow dilution zone, and

(ii) a plurality of measurement and control devices for monitoring and controlling filtrate flow through the plurality of nozzles.

2. (Original) The filtrate addition system of claim 1, wherein the blow dilution header/nozzle assembly comprises a side dilution header/nozzle assembly, a bottom dilution header/nozzle assembly, or a combination thereof.

3. (Original) The filtrate addition system of claim 1, wherein the blow dilution header/nozzle assembly comprises at least 6 nozzles.

4. (Original) The filtrate addition system of claim 1, wherein the blow dilution header/nozzle assembly comprises from 4 to 20 nozzles.

5. (Original) The filtrate addition system of claim 1, wherein the blow dilution header/nozzle assembly comprises a side dilution header/nozzle assembly having 8 to 12 evenly spaced nozzles, and a bottom dilution header/nozzle assembly having 4 to 8 evenly spaced nozzles.

6. (Original) The filtrate addition system of claim 1, wherein the measurement and control devices are magmeters and automatic ball valves.

7. (Original) A filtrate addition system for producing a uniform filtrate distribution in the blow dilution zone of a continuous digester comprising:

(a) a blow dilution header/nozzle assembly located in the blow dilution zone comprising

(i) a side dilution header/nozzle assembly having a plurality of nozzles for introducing and distributing filtrate into the blow dilution zone and at least one measurement and control device corresponding to the nozzles for monitoring and controlling filtrate flow therethrough, and

(ii) a bottom dilution header/nozzle assembly having a plurality of nozzles for introducing and distributing filtrate into the blow dilution zone and at least one measurement and control device corresponding to the nozzles for monitoring and controlling filtrate flow therethrough,

wherein the at least one measurement and control device of the side header/nozzle assembly is independent from the at least one measurement and control device of the bottom header/nozzle assembly.

8. (Original) The filtrate addition system of claim 7, wherein the blow dilution header/nozzle assembly comprises from 4 to 20 nozzles.

9. (Original) The filtrate addition system of claim 7, wherein the blow dilution header/nozzle assembly comprises a side dilution header/nozzle assembly having 8 to 12 evenly spaced nozzles, and a bottom dilution header/nozzle assembly having 4 to 8 nozzles.

10. (Original) The filtrate addition system of claim 9, wherein the blow dilution header/nozzle assembly comprises an individual measurement and control device

corresponding to each nozzle of the side dilution header/nozzle assembly and the bottom dilution header/nozzle assembly.

11. (Original) The filtrate addition system of claim 7, wherein the measurement and control devices are magmeters and automatic ball valves.

12. (Original) A filtrate addition system for producing a uniform filtrate distribution in the blow dilution zone of a continuous digester comprising:

(a) a blow dilution header/nozzle assembly located in the blow dilution zone comprising

(i) a side dilution header/nozzle assembly having a plurality of nozzles for introducing and distributing filtrate into the blow dilution zone and a measurement and control device corresponding to each nozzle of the plurality of nozzles for monitoring and controlling filtrate flow therethrough, and

(ii) a bottom dilution header/nozzle assembly having a plurality of nozzles for introducing and distributing filtrate into the blow dilution zone and an individual measurement and control device corresponding to each nozzle of the plurality of nozzles for monitoring and controlling filtrate flow therethrough.

13. (Original) The filtrate addition system of claim 12, wherein the blow dilution header/nozzle assembly comprises from 4 to 20 nozzles.

14. (Original) The filtrate addition system of claim 12, wherein the blow dilution header/nozzle assembly comprises a side dilution header/nozzle assembly having 8 to 12 evenly spaced nozzles, and a bottom dilution header/nozzle assembly having 4 to 8 nozzles.

15. (Original) The filtrate addition system of claim 12, wherein the side dilution header/nozzle assembly is located at least 1 meter higher in the blow dilution zone than

the entry points of the plurality of nozzles.

16. (Original) The filtrate addition system of claim 12, wherein the measurement and control devices are magmeters and automatic ball valves.

17. (Canceled) A method for producing a uniform filtrate distribution in the blow dilution zone of a continuous digester comprising: (a) introducing and distributing filtrate through a plurality of nozzles of a blow dilution header/nozzle assembly in the blow dilution zone of the continuous digester; and (b) measuring and controlling the filtrate flow through each nozzle of the plurality of nozzles.

18. (Canceled) The method of claim 17, wherein the blow dilution header/nozzle assembly comprises a side dilution header/nozzle assembly, a bottom dilution header/nozzle assembly, or a combination thereof.

19. (Canceled) The method of claim 17, wherein the blow dilution header/nozzle assembly comprises a side dilution header/nozzle assembly having 8 to 12 evenly spaced, small diameter nozzles, and a bottom dilution header/nozzle assembly having 4 to 8 small diameter nozzles.

20. (Canceled) The method of claim 17, wherein the measurement and control devices are magmeters and automatic ball valves.

21. (Previously Added) A filtrate addition system for introducing filtrate to the blow dilution zone of a continuous digester, comprising:

(a) a header/nozzle assembly located in the blow dilution zone, comprising:

(i) a plurality of nozzles for introducing filtrate into the blow dilution zone; and

(ii) means for controlling the flow of filtrate introduced through the plurality of nozzles.

22. (Previously Added) The filtrate addition system as recited in claim 21, wherein the continuous digester comprises a shell, an outlet, and a converging transition from the shell to the outlet, wherein the plurality of nozzles are located in the converging transition.

23. (Previously Added) The filtrate addition system as recited in claim 22, wherein the plurality of nozzles located in the converging transition are located closer to the shell than to the outlet.

24. (Currently Amended) The filtrate addition system as recited in claim 22, wherein the continuous digester comprises a shell having ~~an~~ a longitudinal axis, and wherein the plurality of nozzles are oriented in a direction non-parallel to the longitudinal axis of the shell.

25. (Currently Amended) The filtrate addition system as recited in claim ~~21~~ 22, wherein the continuous digester comprises a cylindrical vessel having an internal surface, and wherein the converging transition comprises a transition from a vertical internal surface to a horizontal internal surface, and wherein the plurality of nozzles are located in the converging transition.

26. (Previously Added) The filtrate addition system as recited in claim 25, wherein the plurality of nozzles are located nearer to the vertical internal surface than to the horizontal internal surface.

27. (Previously Added) The filtrate addition system as recited in claim 21, wherein the means for controlling the flow of filtrate comprises at least one flow control device.

28. (Previously Added) The filtrate addition system as recited in claim 27, wherein the means of controlling the flow of filtrate further comprises at lease one flow measurement device.

29. (Previously Added) The filtrate addition system as recited in claim 22, wherein the header/ nozzle assembly is located below the converging transition.

30. (Cancelled) A method of treating cellulosic fibrous material in a digester, the digester having an interior, an inlet for introducing cellulosic fibrous material, and an outlet for discharging treated cellulosic fibrous material, the method comprising: causing the comminuted cellulosic fibrous material to flow in the digester interior in a substantially vertical flow path; causing the comminuted cellulosic fibrous material to flow in a non-vertical flow path toward the outlet by providing a converging transition to the outlet; and

introducing filtrate to the converging transition to produce at least one of higher blow line consistency, increased digester DF capacity, improved heat recovery efficiency, improved washing efficiency, improved chip column movement, and reduced digester circumferential temperature gradients.

31. (Cancelled) The method as recited in claim 30, wherein introducing filtrate comprises introducing filtrate via a plurality of evenly-spaced nozzles located in the converging transition.

32. (Cancelled) The method as recited in claim 31, wherein introducing filtrate further comprises controlling the flow of filtrate to the plurality of evenly-spaced nozzles.

33. (Cancelled) The method as recited in claim 30, wherein introducing filtrate comprises introducing filtrate nearer to the vertical flow path than to the outlet.

34. (Cancelled) The method as recited in claim 33, wherein introducing filtrate further comprises introducing filtrate via a plurality of evenly-spaced nozzles located in the converging transition.

35. (Cancelled) The method as recited in claim 33, wherein introducing filtrate further comprises introducing filtrate to the vertical flow path of the fibrous cellulosic material.

36. (Previously Added) The filtrate addition system as recited in claim 22, wherein the plurality of nozzles are located in zones of localized velocity gradients in the converging transition.

37. (New) The filtrate addition system as recited in claim 22, wherein the means for controlling the flow of filtrate comprises at least one flow control device.

38. (New) The filtrate addition system as recited in claim 37, wherein the means of controlling the flow of filtrate further comprises at lease one flow measurement device.

39. (New) The filtrate addition system as recited in claim 23, wherein the means for controlling the flow of filtrate comprises at least one flow control device.

40. (New) The filtrate addition system as recited in claim 39, wherein the means of controlling the flow of filtrate further comprises at lease one flow measurement device.

41. (New) The filtrate addition system as recited in claim 25, wherein the means for controlling the flow of filtrate comprises at least one flow control device.

42. (New) The filtrate addition system as recited in claim 41, wherein the means of controlling the flow of filtrate further comprises at lease one flow measurement device.

43. (New) The filtrate addition system of claim 21, wherein the blow dilution header/nozzle assembly comprises at least 6 nozzles.

44. (New) The filtrate addition system of claim 21, wherein the blow dilution header/nozzle assembly comprises from 4 to 20 nozzles.

45. (New) The filtrate addition system of claim 21, wherein the blow dilution header/nozzle assembly comprises a side dilution header/nozzle assembly having 8 to 12 evenly spaced nozzles, and a bottom dilution header/nozzle assembly having 4 to 8 evenly spaced nozzles.

46. (New) The filtrate addition system as recited in claim 25, wherein the plurality of nozzles are located in zones of localized velocity gradients in the converging transition.